

## **Transvaginal Cerclage and Risk Factors Associated with Failed Cerclage and Preterm Delivery**

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**Background:** Cervical insufficiency is treated with a cerclage. There are inconsistent risk factors associated with failed cerclages.

**Objective:** To evaluate risk factors associated with preterm delivery (<37 weeks) after a transvaginal cerclage.

**Methods:** Retrospective chart review of all women with a transvaginal cerclage between January 2010 and July 2016.

**Results:** In the history indicated cerclage (n=192), preterm delivery was associated with higher BMI (p= 0.012), black race (p= 0.0128), funneling (p=0.05) and shorter cervical length after cerclage (p =0.002). In the rescue cerclage group (n=90), preterm delivery was associated with shorter cervical length first follow up after cerclage (p=0.0001) and at 24-25 weeks (p=0.0006). After multivariable logistic regression, preterm delivery (<37 weeks) was associated with shorter cervical length after cerclage in the history indicated (OR=0.95[0.91, 0.99]) and in the rescue cerclage groups (OR=0.93[0.87, 1]).

**Conclusion:** Shorter cervical length measurements after a cerclage are associated with preterm delivery (<37 weeks).